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ABSTRACT

This study of code switching among Puerto Rican children attending a New York City public school focuses primarily upon the correlation between interaction rules, as perceived by the participants, and code switching. Code switching strategies of a seven-year-old boy, an eight-year-old girl, and a 10-year-old girl in the bilingual third grade class were analyzed in two interactions: an individual interview with the researcher, a female New York Puerto Rican, and a domino game in which all three children participated. The interviews were conducted in both Spanish and English; the interviewer began in Spanish and then switched to English without warning. The study reaffirms other research concerning the ability of children to switch situationally with ease, the superior power/status of English vs. Spanish, and the use of stylistic or conversational code switching for emphasis, addressee specification, elaboration, and idiomatic expressions. The analysis also suggests that, as expected, bilinguals beyond the six-year-old "pre-operational stage" do not "only focus on one feature or variable of a situation at a time" (Genishi, 1976), but their language choices often reflect awareness of several social, linguistic, and situational variables. Child-adult dyads in question-answer interactions constrain code switching, and informal peer interactions stimulate it. Implications for bilingual education and appropriate research methodologies are briefly considered. Examples of dialogues are included (SW)

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Code Switching and Interactions Among
Puerto Rican Children

by

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STATEMENT OF RELEVANCE FOR EDUCATORS

Code switching has emerged as a major focus of investigation in the study of Spanish-English bilingualism, and is, accordingly, a subject well-represented in the Working Papers in Sociolinguistics, treated in papers by Elías-Olivares (No. 30), Pfaff (No. 35), and Herta (No. 39). The current paper, by Ana Celia Zentella, complements these earlier contributions in dealing with code switching among Puerto Rican children, and focusing primarily upon the correlation between interaction rules, as perceived by the participants, and code switching. Zentella's research was conducted in a public school in New York City.

CODE SWITCHING AND INTERACTIONS AMONG
PUERTO RICAN CHILDREN¹

Sociolinguistic and ethnolinguistic research have indicated that a single style speaker is an anomaly. Both monolinguals and bilinguals have linguistic repertoires with a variety of styles that fulfill a range of different functions. Monolinguals select among different styles in the same language; bilinguals select among different styles and different languages. Both style switching and language switching have been referred to as code switching. In this paper, code switching refers only to switching between languages.

The communicative competence of speakers in bilingual speech communities includes knowing which of two languages, and which varieties of each, to speak to whom, when, about what, and how. Competent speakers must also know the rules governing the possibility of switching languages during the same speech situation. Every bilingual speech community does not share the same rules concerning code switching; thus specific linguistic function and the social meaning of code switching vary in each speech community.

Most of the research on code switching has focused on adult bilingual patterns (Haugen 1950, Blom and Gumperz 1972, Gumperz and Hernández Chávez 1975, Pfaff 1975, Timm 1975, Elías Olivares 1976, Valdés Fallis 1976). To date, we have only pieces of description and fragments of a theory of acquisition of code switching by bilingual children. There are many gaps in our knowledge. For example, we know that children switch according to the perceived dominance of the person they address and that older children seem to be better switchers (Shultz 1975, Centro 1976, Cohen 1976, Genishi 1976, McClure 1977); i.e., they can manipulate their codes for a wider variety of stylistic purposes and situational demands, but no research documents how

children develop this ability over the years. Most important, we know that the children learn their communicative competence as members of a speech community, but the code switching rules and behaviors of a speech community have not been compared to those of the child in the classroom. Research is hampered because of the multiplicity of variables to be considered and the slow emergence of a comprehensive theoretical framework. It is difficult to compare the research that exists because the definitions of code switching are not equivalent, and the methodology differs in addition to the age, sex, ability, etc. of the speakers. Some researchers include borrowings in their tabulations (Pfaff 1975; McClure 1977), others reject it (Gumperz 1976), and most do not specify how they deal with it. Some describe and some quantify. The unit of observation ranges from the sentence to the utterance (defined as a turn at speaking by Cohen and Shultz), to the episode that ranges from seconds to one-half hour. Only McClure distinguishes sentences made at sentence boundaries from sentence internal switching among children.

Code Switching and Interaction Rules

This paper points to yet another neglected aspect in the study of code switching, i.e., how the specific interaction rules, as perceived by the participants, correlate with code switching. As Bruck and Shultz suggest, "not one, but a complex interaction of many social variables (e.g., activity, addressee, classroom teacher's language) must be considered in the discussion of language use patterns" (1977:85). The fact that a speaker with X characteristics speaks to a hearer with Y characteristics, in a particular place, about a particular topic, during a specific type of interaction, cannot be disentangled, nor can the conversation be duplicated N times, subject to experimental controls. When McClure states that the "greatest degree of code switching is manifested in free conversation, strongly inhibited in

interrogation and narration" (1977:105), we know that this must be influenced by the parameters she recognizes: participants, topic, discourse type, and setting. We maintain that communicative competence in code switching is also affected by the participants' definition of the interaction and knowledge of appropriate rules for the interaction. Even where there is "no consistent association of language with setting or activities," different rules apply during communicative tasks vs. naturalistic situations (Genishi 1976:71). When asked to describe something or to tell another child to make something, bilinguals code switched when not talking directly about the task, but persisted in one language during the task, even when they needed to make the instructions clear. This may be a reflection of the bilinguals' notion of correct teacher/authority behavior, an awareness documented in monolingual peer teaching (Cazden 1977).

Social psychologists define human interaction as "sharing common properties determined by the setting in which communication occurs and the structural relationships between the participants" (Siegman and Pope 1972:24) but students of language in its social setting must add that verbal human interaction occurs by means of a shared system of phonological, morphological, syntactic, and semantic rules, and shared rules about the correct "ways of speaking" (Hymes 1974a and b). Since social and linguistic phenomena are always present, any approach to the study of code switching must correlate social variables and the rules of the interaction setting with the syntactic patterns chosen by the speakers. Code switching itself helps to create a conversational dynamic that only the analysis of conversations can reveal:

What we need are detailed investigations of speakers' use of code switching strategies, in actual conversational exchanges, to show that they exhibit some form of linguistic patterning, that they contribute to the meaning of constituent messages and that participants in the interaction agree on their interpretation. (Gumperz 1976:14)

Research setting

This paper analyzes the code switching strategies of three third graders in two interactions: (1) an individual interview with the researcher, an adult female member of the New York Puerto Rican speech community, and (2) a domino game in which all three children participate. The research was conducted in a public school in a low middle income area in the Bronx, New York City. The subjects are in the only third grade bilingual class in the school, which is 60% Puerto Rican and 40% Black. All the teachers in the bilingual program are Puerto Rican.² As a participant observer, the investigator collected the data during seven days with the class over a period of four months.³ No effort was made by the investigator to speak one language more than another in the class, although, given the ages (7-10) and language dominance of most of the children, Spanish predominated. The participant observer was another teacher-like figure whom the children called upon for academic and personal help. She also took children out of the room upon occasion, brought the class presents, and was called by her first name. The most salient characteristic of the investigator was that she was always accompanied by a tape recorder, and frequently checked on another left under children's desks.

The research described here is based on three interviews that range between 10 to 20 minutes in length with a seven-year-old boy J., an eight-year-old-girl A., and a 10-year old girl N.; and on two domino games in which the same children are the only players. Thirty-one interviews were conducted in the class (19 third grade, 12 sixth grade); twelve domino games were recorded. The findings presented here are representative of the patterns in all the interviews and domino games. The interviews were conducted by the investigator in both Spanish and English, and took place in a quiet corner of the classroom. An ECM 16 microphone was attached to the child's shirt/blouse and all

interviews were recorded. The children were taken to a small room on another floor of the school for the domino games. The tape recorder was placed under the table and the microphone was taped to its edge; the investigator sat in a corner, seemingly busy with paperwork, but actually taking notes on the conversations.

The subjects

The children are quite different in several ways. J. is a seven-year-old boy who had come from Puerto Rico two months before the interview took place. He lives with his mother and younger brother, who speak only Spanish. His father speaks English, and wants him to learn it. J. does not know how to read or write at grade level in Spanish. The Aspira exam placed him in the 7th percentile in the Spanish version of the test, and in the 1st percentile in the English part.⁴ A. is eight years old and was born and raised in the United States. She lives with two older sisters and her parents; she speaks English to all of them except her mother. A. was rated as a fluent bilingual by both the teacher and the investigator. She scored above the 21st percentile in English on the Aspira exam, the cut-off point for admission to the bilingual programs, but was placed in the bilingual class at her parents' request. Over 90% of the class rated her the best Spanish speaker. A. is a very good student and is very competitive; she spent an afternoon crying after she had been unable to finish a spelling test because she mistakenly wrote a complete sentence for each word. A month after the interview, A. was placed in a monolingual class, much to her teacher's distress.

N. is taller than most of the children in the class, and older than all the children at ten years of age. She was left back in another school. N. was born in the United States and has never been to Puerto Rico. She speaks English to her two older sisters and Spanish to her younger brother and two

younger sisters. This pattern is typical of most of the children in the class. Only four children (three third graders, one sixth grader) reported speaking only Spanish to their siblings. Three others speak only English to their brothers and sisters, and the majority (22/29)⁵ reported that they speak both languages at home: they speak Spanish to those younger than they and English to the older children. Two-thirds of the mothers are Spanish monolinguals but 50% of the fathers speak English and Spanish.

N. placed in the 11th percentile in Spanish and in the 8th percentile in English, but both teacher and interviewer rated her dominant in English. N. was the only child interviewed who voiced insecurity about her linguistic ability: "Yo no hablo bueno en español o inglés" (I don't speak good in Spanish or English) "Sometimes I don't know what Mrs. G. saying (sic) in Spanish. And sometimes I don't in English." Her English shares many characteristics with Black English vernacular (BEV) although she does not have English-speaking black friends. The same phenomenon has been observed in Philadelphia's Puerto Rican youth (Poplack 1977).

The children also differ in their stated language preference. Although N. says she prefers Spanish at one point, at another she claims not to speak it to A. "because it's too hard to speak Spanish". A. likes both languages equally well although she rates herself English dominant. After contradicting himself, J. says he prefers English, because he wants to meet new friends and speak to his father and other members of the family in English:

I: ¿Y qué idioma te gusta hablar mas?

What language do you like to speak most?

N. Un poquito inglés.

A little English.

I: mm., ¿y porque?

mm, and why?

*Aspirated syllables - final s = 'h.

- J: Porque así puedo conocer amigos. Because that way I can meet friends.
- I: Ah, sí, ¿y cual idioma te guhta mejor? Oh yes, and which language do you like best?
- J: Mejor me gusta el ehpanol (I: ajá) pero el mǎh que me guhta eh el inglés. Best I like Spanish. (I: Yes) but the one I like the most is English.
- I: El mah que te guhta (J: Sí) porque? The one you like best. (J: Yes.) Why?
- J: Porque eh mejor. Eh mǎh fácil decir lah palabrah en ehpanol que en ingles. Because it's better. It's easier to say the words in Spanish than in English.
- I: No te oigo, ¿cómo? I: I can't hear you, what?
- J: Qhe eh mejor lah palabrah, mm, eh mejor lah palabrah decirlah en ingleh que en espanol. J: That it's better the wrods, mm, it's better to say the words in English than in Spanish.
- I: ¿Como eh mejor? How is it better?
- J: Pueh así puedo hablar con mi papá, puedo hablar con el sobrinito, puedo hablar con la sobrinita del, puedo hablar con mi tía. Well that way I can talk with my father, I can talk with his little nephew, I can talk with his little niece, I can talk with my aunt.

J.'s choice of English and N.'s choice of Spanish are characteristic of a general pattern. The younger children preferred English but the majority of the sixth graders interviewed preferred Spanish. The biggest disparity between language preference and dominance occurred in the third grade; 47% (9/19) rated themselves as English dominant but 63% (12/19) chose English as their favorite language (see Table I). The analysis of the interviews and the domino games indicates that a truly accurate description of dominance and preference must take different speech events into account.

The interviews

The interviews were conducted in both Spanish and English; the interviewer began in Spanish and then switched to English without warning. The children were asked about their personal backgrounds and favorite games and television programs, and an attempt was made to elicit a narrative in each language

either about a memorable family gathering or an accident. We cannot be sure that the children perceived the conversation as an interview. Psychologists assume that any interview in this society presupposes an "asymmetrical relationship" between the interviewer and interviewee since the interviewer is in control of the question which the interviewee is expected to answer (Seigman and Pope 1972:2; see also Matarazzo 1963; Frahm 1970; Good and Brophy 1970; and Lewis and Freedle 1972). Sociolinguistic research and accommodation theory have demonstrated that topics such as language, older and higher ranked interviewers, and the presence of a tape recorder all signal a more formal situation for adults, in which greater attention is paid to speech (Labov 1972; Giles 1975). Irvine's (1977) suggested characteristics of formal speech were realized in the following ways in the interviews:

- increased structuring and predictability of the code, e.g.,
phonology: presence of syllable final s in PR Spanish.
- adherence to co-occurrence rules, e.g., absence of code switching.
- invoking of positional identities, e.g., appropriate use of tu/Ud verb forms.
- emergence of a focus on the speaker's turns and topics, e.g., observance of turn-taking rules and answering the interviewer's questions.

The interviews with J., N., and A reflect different degrees of recognition of these variables. J. is oblivious of all of them. One indication is the sheer volume and naturalness of his responses. Even in the English part of the interview which he does not understand, he is eager to expand his answers. In terms of phonology, J., A., and particularly N. have a high degree of aspirated or zero realization of syllable final s, realization of which is a

marker of formality (Ma and Herasimchuk 1971; Alvarez et al. 1977). The seven-year-old's interview also contained many light moments and unpredictable features, e.g., lapses into baby-like lisping when he could not pinpoint the day of his arrival, and "Ay Dios mfo" (O my God) as a preliminary answer to a question about his birthplace. He speaks with both adult intonation and gestures, and a child's sound effects for an airplane and a home run. The effect is a humorous one, a frequent result of the breaking of co-occurrence rules. There is little overt recognition of the difference in status between the seven-year-old and the interviewer: he addresses her as "td" at the very beginning of the interview, ignores questions and attempts to redirect the topic on two occasions, and is the only child to reverse the roles to ask the interviewer a question. The most striking example of an unexpected response concerned his brother's age:

- | | |
|--|--|
| I: ¿Tu tienes otro hermanito chiquito? | Do you have another younger brother? |
| J: Sí. | Yes. |
| I: ¿Cuántos años tiene él? | How old is he? |
| J: O-? Yo no sé porque él salió (2x) como mi papá y yo salí como mi mamá. | O -? I don't know because he came out like my father and I came out like my mother. |
| A: Sí. | Yes. |
| J: Ve, mi mamá salió blanca y yo salí blanco y mi papa salió -- mm -- m-triguero y O-ito salió triguero. | See, my mother came out white and I came out white and my father came out -- mm --m olive skinned and a little O.- came out olive skinned. |
| A: Mm. | |
| I: Cuando él salió no tenía ni un pelito. | When he came out he didn't even have one little hair. |
| O: (laughing) ¿Cuántos años tiene? | How old is O? |
| J: Cinco. | Five. |

Race seems to be an important topic to J., and the fact that he takes advantage of the interviews to bring it up provides evidence that "... the two-person group is the most frequent interpersonal structure for the transmission of private information" (Heller 1972:9). He mentions race again when he describes a family friend: "Era negro negro, no hablaba ingles, pero era negro" (He was black black, he didn't speak English, but he was black).

Since J. is monolingual, there are no examples of code switching in the interview except for "miss" (see below), but the English portion reveals discourse tactics that the monolingual calls on to conduct a conversation in a language he does not know. The primary rule seems to be "don't answer anything unless you're very sure of getting it right" and his answers also seem to reflect several "cognitive strategies" documented for other incipient bilinguals (Wong Fillmore 1976):

1. assume the talk is about something relevant and guess on this basis
2. listen for and use formulaic expressions
3. look for recurrent parts
4. generalize to other forms

When faced with twenty questions in English, J. did not respond verbally to six, nodded correctly to one, ignored two by responding with his own topic, gave two wrong answers in Spanish, came close with two other answers, and responded correctly to seven questions. He has apparently learned to listen for cognates and to deduce the question from the context or key words, e.g., he did not respond to "dominoes" or "T.V." until they were changed to "dominoh" (Spanish pronunciation) and "T.V." was switched to "television" which although it was pronounced in English sounded more like the Spanish /televiysyon/).

I: J. Do you know how to play dominoes? (repeat) Dominoh (Spanish)	(J. doesn't answer)
J-I: Sí, un poquito.	Yes, a little.
I: Do you watch T.V.? What's your favorite T.V. program?	(Silence)
	(Silence)
J-I: Eso fue-	That was - (attempts to continue last narrative)
I-J: On the television, do you watch television? What's your favorite TV program? Do you watch-	(Nod)
J-I: El cinco	Five
I-J: Channel five?	(Nod)
J-I: Espiderman!	Spiderman
I-J: Which?	Spiderman.
J-I: Espiderman	
I-J: Spiderman, yeah.	
J-I: Y el budi	And "el budi" (Woody)
I-J: Which is that?	
J-I: El que hace lululululo, sabe?	The one who goes looloolooloo, you know?
I-J: Ohh. I don't know his name.	
J-I: MMM, es el pájaro loco.	MMM, it's Woody Woodpecker.
I-J: Oh, Woody Woodpecker!	
J-I: Ese, y Flintstone.	That's the one. And Flintstone.
I-J: Flintstones. They're good.	
J-I: Hay otro mah que tiene un perro de electricidad; no ese no me guhta, me guhta el de una mujer que hace magia.	There's another one who has an electric dog, no I don't like that one, I like the one about a woman who does magic.

"Baseball" was the third cognate that triggered a response. It is interesting to note that although the language of the interview switched abruptly, J. did

not react against or request Spanish. Only one child of the 31 interviewed asked for the language he knew best (English). J. accurately described what he does when somebody speaks to him in English:

Bueno, digo lo que sé, porque si no puedo decirlo, digo lo que sé.

(Well, I say what I know, because if I can't say it, I say what I know.)

The only English word in J.'s entire interview is 'miss,' i.e., teacher:

I: ¿Qué eh lo que máh te guhta? What do you like most?

J: Lo que está dando la ma - What the teach- the miss is giving now,
la miss ahora, eso. that.

He switches in midstream from "la ma- (-estra=teacher) to "la miss" perhaps because that is how teachers are addressed in Puerto Rico, and perhaps because it is one of the few English words he is sure of. In the domino game, however, he experiments with several English sounds and words (see below).

As in other studies of code-switching, the children in these interviews "follow the leader" in their choice of language, i.e., they responded in the language spoken to them if at all possible. Seventy-four percent (23/31) followed the switch in language during the interview, and half that number switched immediately when the interviewer did. The others followed suit 2-10 questions later. Only eight children never switched: one is a monolingual English speaker and four others arrived from Puerto Rico or the Dominican Republic within the year. Of the remainder, two were English dominant and one was Spanish dominant.

A. and N. switched immediately, and A. switched back and forth with the interviewer four times. In the interview, A. would seem to be a perfect example of Weinreich's "ideal bilingual" who "switches from one language to the other according to appropriate changes in the speech situation (interlocutors, topic, etc.), but not in an unchanged speech situation, and

certainly not within a single sentence." (1953:73). In contrast to J., she also gives indications of considering the interview a formal situation, e.g., higher incidence of syllable final s, observance of language choice and turns of the interviewer, and few co-occurrence violations. She answers with minimum responses, and only expands two answers. She is soft-spoken throughout the interview except for one loud aside, "Shut up," to someone who calls her. A. only switches out of Spanish for two noun phrases (NPs). One is a smooth code change for an unknown term. "Es mi half sister," which translates the Spanish term "media hermana."⁶ A. hesitates before the only other loan, "Christmas." This is frequently borrowed by U.S. Puerto Ricans without hesitation, but there are three possible forms for the holiday: Navidad (Spanish), /kriyhma(h) (English loan with PUerto Rican Spanish phonology), and /krismas/, the English version. A. chose the last, which required a complete change in phonology. N. chose the same form the first time she referred to the holiday, but when the interviewer did not understand it, she switched to the second. The Spanish phonology was more consistent with the Spanish interview, and she referred to the holiday in that way for the rest of the interview, i.e., three more times. N. also borrowed /hapiy beldey/ with Spanish phonology for "birthday," as did three others; for these children the English felicitation replaces the Spanish for both the day of birth and the greeting on that day: e.g., "Cuando eh Kriyhmah eh mi hapi beldey" (when it's Christmas, it's my birthday). The only other English word in N.'s interviews is "shelves":

Mi "mana* compró un - tú sabeh
esa cosa bien grande pa" poner
un radio, que tiene shelves?

My sister bought a - you know that real
big thing where you put a radio, that
has shelves?

* " = omission of syllable.

' = zero realization of syllable-final s.

N.'s incomplete control over Spanish is obvious in the nonstandard verb form "ponieron," and her omission of an object in a relative clause: (1a) "que tiene trece" (the one who is thirteen). She also mispronounces two nouns: "alta presón" for alta presión (high blood pressure), and "prefume" for perfume (perfume). During the English part of the interview, A. never switched to Spanish, and N. did so only once, to describe her mother's ailment in the only term she had heard for it:

N: I went to the hospital once with my mother cause sometimes she got alta-altra-per-altra preson.

I: Alta presión? (High blood pressure?)

N: Yeah, that's what she gets.

N. consciously honors the language choice of the interviewer. She suppresses a Spanish term when explaining dominoes in English, which gives the impression that she does not know the formulaic expression for passing, but during the game itself she instructs the others on its use:

Interview

I: What happens if you don't have the right domino?

N: You say -- "No."

Game

N-J: Cuando tú no tienes tú dices "paso." Dilo.	When you don't have you say "I pass." Say it.
--	--

The limited use of code switching within their turn at speaking by N. and A. is the pattern of most of the interviews. The largest percentage stylistic sentence internal switches in both third and sixth grade interviews were loans, usually nouns and noun phrases (see Table II).

Although we cannot accurately compare these figures with the code switching recorded during classes at the childrens' desks because different students are involved for different periods of time, it is interesting to note

that during classes there was a lower incidence of code switching within the students' turn, and that the majority was at sentence boundaries. The percentage of loans and N/Nps was much lower (see Table III).

The higher percentage of loans and of N/Nps in the interview may be the result of the fact that the interviewer selects the topic and leads the speaker into discussions of his/her choice. In order to honor the language of the interview, the speaker must temporarily change to the other language for an unknown term. The speaker might avoid this switch for a single item in spontaneous conversation by shifting to the other language in anticipation of it, i.e., at the boundary of the sentence that includes the term. Without larger samples of speech for the same speaker in different situations, we can only speculate that N. would have chosen to say the sentence with the word "shelves" in it in **English** or might have continued on in English once she had switched, in a discussion with her friends.

Avoidance by bilinguals of constructions that they do not control, e.g., Spanish subjunctive, has been documented by Lavandera (1978) for Cocoliche speakers. She also argues that bilinguals are uneasy in a monolingual setting in either language, because they feel constrained against using their complete repertoire. If this is so, we can expect bilinguals to code-switch more with other bilinguals in situations which they do not perceive as requiring only one language, not only as an affirmation of shared identity, but also because they are thereby able to express themselves more fully. Some corroboration of this occurred during fieldwork conducted by four fluent Spanish-English speakers in the Philadelphia Puerto Rican community: the only code switching was directed to the Puerto Rican interviewers, during informal sessions (Alvarez et al. 1977). Poplack (1978) also confirms this.

The domino game

It was hypothesized that among these children, as among the Mexican-American children studied by McClure, "the greatest degree of code-switching (would be) manifested in free conversation" (1977:105). Specifically, it was necessary to compare the code switching patterns of the same children in both formal and informal situations. The language choices and syntactic constraints produced in the interviews were contrasted with those exhibited in a domino game in which N., J., and A. interacted. The two situations differed in at least four important ways:

1. physical setting: the domino game took place outside of the classroom
2. age/rank of participants: no adults were involved
3. number of participants: the dyad was replaced by a triad
4. interaction setting: the game allowed spontaneous speech in which the children observed different conversational turn-taking rules, somewhat affected by the nature of taking turns in the game.

Analysis of the domino game provides a different picture of the communicative competence of the children than that presented in the interviews. Although the presence of the Spanish monolingual boy necessarily demanded situational switching when he was addressed directly or when an attempt was made to include him in the conversation, the code switching that emerged is more varied and displays more of the twelve "patterns" that have been observed among fluent Chicano adults in conversations among themselves (Valdés Fallis 1976).

Although most Puerto Rican children usually see adults (male) play dominoes in Spanish, in this domino game, as in the twelve others recorded, language choices (see Table IV) were a complex result of speaker and hearer

proficiency and preference, linguistic security in the situation, knowledge of the rules of the game, history of relations between the participants, and stylistic strategies.

We have already outlined the linguistic proficiency and preference of the three children. J. and N. know how to play the game; A. does not. This situation is unusual for her. In the game, she uses her knowledge of both languages to reaffirm her friendship with N. and to maintain her distance from J., who made the mistake of trying to teach her how to play. N., for all her linguistic insecurity, is the link among the players because she knows both languages and the game. J. is confused about the rules throughout the game and is at a disadvantage because he is the only monolingual, but the situation prompts him to experiment with English.

As expected, both N. and A. usually address J. in Spanish, but N. is the most sensitive to his position (see Table V). N. speaks only Spanish to J. except once when she is in the midst of counting in English, which triggers an English response to him:

N-J: A. ganó.

A. won.

J-N: Ahora tenemos que contar
to" esto. Tenemos que
contar lo que tenemos
juntos Ella, porque ella
fue la que ganó.

Now we have to count all this. We have
to count what we have together. She
(i.e., A.) gets the points because she
was the one who won.

N-J: (counting in English) I
know.

All of her other comments to him are in Spanish, although one contains English discourse markers, which we shall return to later.

N.'s consistent choice of Spanish for J. reflects her acknowledgment of his handicap, underscored by the fact that he is her junior, a fact which J. himself defers to when he suggests that she go first because she is the oldest:

N-J: Déjalo así. ¿Quién va primero? Tú va primero. Leave it like that. Who goes first? You go first.

J-N: No porque tú eres la más grande. No, because you're the biggest.

N-J: No, no.

In contrast, 30% of A.'s comments to J. are in English (8/27), and all but one are commands, contradictions, and insults (3 = "shut up"). As the following example demonstrates, A.'s Spanish remarks to J., on the other hand, show concern or advice, i.e., the "caretaking" function cited by McClure. This section is also an example of A.'s command of situational code-switching for addressee shift:

N-J: No (re domino put down by J.).

J-N: Sí.

A-N: Yeah! He had-he could put it over here.

J: Ponla aquí (helps J. place the domino). Put it here.

N: It's just that you don't wanna lose because you don't got no 3 or 4.

J: Mira, si tu tienes un cuatro ponla aquí. Ya tu fuihte. Este eh tuyo. Look, if you have a 4 put it here. You went already. This is yours.

N-A: Oh, that's right, he was putting it over there.

One of the only two Ud. forms in the interviews or games is said by A. to communicate distance and anger.⁷

J: Eso era mío. That was mine.

A: O no, eso no era suyo! Oh no, that wasn't yours.

This reflection of anger is usually conveyed by the use of English. Instead of distinctions in the pronouns and verbs, Spanish serves the tú (solidarity) function for A.'s relation with J., and English serves the Ud. (power) function (Brown and Gilman 1972).

A. consistently speaks either English or Spanish to J.; the only sentence internal code-switch directed to him is the English pronunciation of a cognate (English zero = Spanish cero). For the rest of the game, however, she only uses the Spanish pronunciation of "zero" when speaking Spanish. Nor is J. the object of sentence internal code switching from N. more than once. One passage includes both A.'s and N.'s only sentence-internal code switches to J. One may have triggered the other. In lines 8 and 10 below N. initially uses an English discourse marker "if," but replaces it for J.'s benefit. The passage also includes one of the English statements that A. makes to J., a clarification of her preceding interpretation of how one wins the game:

- | | | |
|-----------|--|---|
| (1) J-N: | Si tu tienes, <u>velá</u> si yo,
si hay así así así y aquí
yo pongo uno, pue yo gano,
tranque. ⁸ | If you have, right if I, if there are
like this, like this, like this, and
I put one here, well I win, stalemate. |
| (2) N-J: | No, tú no puede' trancar. | No, you can't stalemate. |
| (3) J-N: | Si. | Yes. |
| (4) N-J: | No. | No. |
| (5) A-J: | No. Eh que si alguien
tiene algo <u>así</u> , tu pone'
un zero así, si no tiene
nada; tu no gana'. | No. It's that if somebody has some
thing like this and you put a zero
there, if you don't have anything you
don't win. |
| (6) N-J: | Tú tiene' - | You have |
| (7) A-J: | You have to get NUTTING. | |
| (8) N-J: | If tú no, if tú pierdes
toíto esto entonces tu
ganah. | If you don't if you lose all these then
you win. |
| (9) J-N: | ¿Ah? | Huh? |
| (10) N-J: | Cuando tú pierde' toito'
loh domino tú <u>entonces</u>
tú gana! | When you lose all the dominoes you then
you win. |
| (11) A-N: | Go, hurry up, go. | |

The teacher rated N. English dominant, a judgment with which we might have

agreed based on the interview, but one not corroborated by the domino game. One obvious explanation for the different behavior can be considered domain effect, i.e., domino games are related to the home domain where Spanish predominates, and the interviews are reminiscent of school and other institutional settings where English predominates (Fishman et al 1971). However, the girls differ in the language of their general (=G) or egocentric (=E) remarks, i.e., those which they make to themselves or for the group's benefit. N.'s general and egocentric remarks are in Spanish except when she counts to herself, which is in English. This probably reflects the fact that she learned to count in English. A.'s general and egocentric remarks, on the other hand, are all in English. One exception in Spanish is triggered by J.'s persistent references to "tranque," a term unknown to her:

- | | |
|---|--|
| J-G: Voya hacer tranque. | I'm gonna stalemate (the game). |
| N-G: Avanza, ¿quién va? | Hurry up, who goes? |
| J-G: Voy a hacer tranque. | I'm gonna stalemate (the game). |
| A-E: "Tranque, tranque," queh
eso? Va a "cer tranque." | "Tranque, tranque", what's that? He's
gonna "make a tranque." |

Whereas both girls usually speak Spanish to J., they usually speak English to each other. N. addresses A. in Spanish 24% of the time, however, despite the fact that A. addresses her in English 70% of the time, and in contradiction to her claim that she did not speak Spanish to A. Although the numbers are too small to be significant, they give some indication of basic differences in N.'s use of Spanish with A. vs. A.'s use of Spanish with J. (see Table V). Fifty percent of the older girl's Spanish to the younger consists of turn-taking commands, i.e., *tú vas* (you go) (4/8). Although these may have been learned at home as part of the game, in these specific cases they are continuations of the language of the previous utterance(s) (12-14), or refutations of A.'s previous utterance in English (15-17):

- | | | |
|-----------|-----------------------------------|------------------------------|
| (12) N-J: | Avanza. | Hurry up. |
| (13) J-N: | No tenga na". | I don't have anything. |
| (14) N-A: | OK tú vas. | OK, you go. |
| (15) A-N: | No, wait wait, look look
look. | |
| (16) N-A: | Oh si, ahora tú vas. | Oh yes, now you go. |
| (17) A-N: | No tú vah chica, chica,
chica. | No, you go girl, girl, girl. |

Another passage includes the only adjective that is switched in either the interview or the domino game (20) and a rhymed response in Spanish to an English word (22):

- (18) N-A: You got 28 points.
- (19) A-N: Who?
- (20) N-A: Veintidos points. 22 points.
- (21) A-N: Who?
- (22) N-A: Tu. You.

In lines 15-17 N.'s Spanish highlights her negative response to A. and that in turn triggers a rare Spanish response from A. that repeats the language and some of the form for an emphatic refutation. A. breaks her "speak English only to N." pattern a total of three times. The remaining instances are both excited affirmations that contradict N.'s previous, short remonstrations, which might be either English or Spanish in N.'s phonological system, i.e., "No," "A-!" (name). In one case (lines 23-26) A. continues to speak in the language she had been previously speaking (to J.), but in the other it is an emphatic contrast with her previous utterance in English (lines 27-29):

- (24) A-J: Eso no es mío tampoco. Es de ella (that's not mine either, it's hers).

(25) N-A: A.!

(26) A-N: ¡O sí! Ese es el tuyo! (laughing: Oh yes, that's yours!)

A-N: You go.

N-A: No.

A-N: Sí sí sí.

These are examples of momentary inclinations that adept code switchers follow which defy precise classification.

Although A. does not speak much Spanish to N. during the game, she employs another tactic that demonstrates that she knows N. is bilingual and that also constitutes an affirmation of her own ability to speak two languages, i.e., she changes languages within her own turn at speaking five times for various purposes, e.g., emphasis, via repetition: "that's not mine, eso no es, that's not mine," and elaboration, "A 'T', can't you see, mira lo que tú hiciste N." (Look what you made N.) Her control of sentence internal switches, however, falls short of adult patterns. One, "This is not mine either. Eso es (that is) yours," is of questionable acceptability, i.e., switches between predicates and possessive pronouns are not usual, but the switch serves to give greater weight to the charge. Moreover, the word 'yours' is in the customary language for addressing N. and complements the previous 'mine.' A pattern similar to the triggering mentioned above is obvious in the following exchange:

N-J: Cuatro o Cero (four or zero).

A-N: He has a cuatro (He has a four!)

A. also switches what Valdés Fallis would call a discourse marker. In contrast to N.'s "if tú pierdes" (line 8 above), A.'s "Es que (unintelligible) saves everything for nothing" is much more acceptable.

The ten-year-old's three sentence internal switches are also more varied

in terms of syntax and purpose than her switches in the interview. One is a repetition of a false start, to A., i.e., "you could-tú puede' hacer eso," that may have been switched midstream as a concession to J. Another violates Gumperz's universal constraint against the switching of a lone adjective, (20) "Veintidós (twenty-two) points," although switching for lone adjectives seems characteristic of younger children's code changing; McClure's data includes thirteen lone adjectives (p. 100). N.'s third sentence internal code switch is a noun: "No puede' ponerlo de ese way, A." (You can't put it that way, A.)⁹ When we compare the interviews with the domino game (see Table VI) we find that whereas only English NPs were switched in the interviews, the domino game provides examples of turn internal switches into both English and Spanish for discourse markers, full sentences, and NPs. The children obviously code switch among themselves to a greater degree and with more variety than they did in the interview.

J. still does not know enough English to be able to code switch effectively, but he experiments with English in the domino game with four formulaic expressions, the crucial first step in second language learning (Wong Fillmore 1976). The fact that most are directed to A. indicates J.'s recognition of her language preference in the game setting. One occurs in anger:

A-J: You shut up.

J-A: No shut up.

J-N: ¿Vela que yo iba? (Right I was supposed to go?)

As J. triumphantly puts down the winning domino to the second game, he uses an English expression that turns out to be a pun on the end of the game, probably unintentionally:

A-J: You go. Who goes?

J-All: Go away!

He had obviously learned to follow the trigger provided by A. and elaborated on it for excellent effect.

Despite the fact that their switches are functionally and formally more limited than adult varieties, all the children call on their ability to code switch as part of their repertoire with each other. It seems plausible to postulate that the constant demand on bilinguals to switch situationally with rapidity accustoms them to producing sentences in rapid alternation and that this skill is extended and exploited for its stylistic benefits, especially if sentence internal switching is a badge of community membership that is valued, albeit covertly. The existence of covert norms that produce linguistic behavior contrary to espoused norms is not an unusual linguistic behavior (Labov 1974).

Conclusion

The complexity of code switching patterns, purposes, and syntactic constraints is already obvious in the speech of the eight- and ten-year-old bilinguals studied, although to a lesser degree than in the speech of adults. Our study reaffirms other research concerning the ability of children to switch situationally with ease, the superior power/status of English vs. Spanish, and the use of stylistic or conversational code switching for emphasis, addressee specification, elaboration, and idiomatic expressions.

The analysis of the interviews and domino games also suggests that, as expected, bilinguals beyond the six-year-old "pre-operational stage" do not "only focus on one feature or variable of a situation at a time" (Genishi 1976:166), but that their language choices often reflect awareness of several social, linguistic, and situational variables. These variables take on a particular configuration in specific interactions which either encourage or hinder code switching, particularly within the boundaries of a sentence.

Child-adult dyads in question-answer interactions constrain code switching, and informal peer interactions stimulate it.

One implication for bilingual education is that the full range of a child's linguistic ability and code switching patterns may not be obvious or exploited in formal classroom lessons or examinations. Since the form and function of code switching is initially learned in various home and community interactions, an ethnographic approach (Mehan 1977; Hymes 1976; Heath 1977) that links the community to the school would enable us to understand why and how a child code switches in the classroom in different ways at different times. Where the child and the teachers are members of the same speech community, we should expect a greater degree and variety of code switching and less miscommunication, but this is jeopardized by two important factors: The first is that the teacher has been trained by another, often conflicting set of rules for appropriate linguistic behavior, e.g., teachers may have learned to be ashamed of their variety of Spanish, as many Puerto Ricans have, and/or may be under orders never to mix English and Spanish in the classroom (La Fontaine 1975). The other problem is that the speech community is heterogeneous and teacher and child may be caught in changing values due to language and culture shift, e.g., teachers who were born and educated in Puerto Rico may be teaching U.S. Puerto Ricans, or U.S. Puerto Rican teachers may have a classroom with island-born and reared children. Other factors that can affect the code-switching patterns in the classroom have to do with the organization of the program. One bilingual school may be parent-run, another may be completely controlled by another group; either may be transitional or maintenance in philosophy.

The appropriate methodology for the study of the acquisition of code-switching and its role in the communicative competence of bilingual children

must seek unity between quantitative and qualitative approaches. Children with differing linguistic ability and proficiency, contact with different class and racial groupings, access to monolinguals, opportunities for travel back to the island, etc., make it impossible to have confidence in tabulated generalities about how the Puerto Rican community code switches. This is especially true if we seek some understanding beyond a specification of intra-sentential syntactic constraints, i.e., about their interpretation in communication, and their reaffirmation of the community's identity. Ultimately, both ethnography and quantification can be joined together with great profit (Sankoff 1972; Lavandera 1978). Microanalyses of particular interactions can contribute to both.

TABLE I
LANGUAGE PROFICIENCY SELF RATING AND PREFERENCE

	<u>Self-Rating</u>			<u>Preference</u>		
	3rd Grade	6th Grade	Total	3rd Grade	6th Grade	Total
Spanish	9	5	14	6	6	12
English	9	6	15	12	4	16
Both	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>3</u>
Total	19	12	31	19	12	31

TABLE II
COMPARISON OF 3RD AND 6TH GRADE
CODE SWITCHING IN INTERVIEWS

	n*	% S Internal	% Full S	% Loans	% N/NP	% English	% Spanish
6th Grade	56	87	11	48	45	81	19
3rd Grade	61	93	7	41	41	60	40

*Stylistic switches within the speakers' turn.

TABLE III
COMPARISON OF 3RD AND 6TH GRADE
CODE SWITCHING AT DESKS

	n*	% S Internal	% Full S	% Loans	% N/NP	% English	% Spanish
6th Grade	46	37	61	24	13	59	41
3rd Grade	21	43	57	24	14	42	58

TABLE IV
SPEAKERS' LANGUAGE CHOICES IN DOMINO GAME

Language	Speaker		
	N	A	J
English	27	62	3
Spanish	69	24	73
Both	<u>5</u>	<u>7</u>	<u>1</u>
	101	93	77
Total = 271			

TABLE V
LANGUAGE CHOICES OF PARTICIPANTS
TO EACH OTHER IN DOMINO GAME

	J-A	J-N	N-J	A-J	N-G/E*	J-G	A-G/E	N-A	A-N	Total
English	2	0	1	8	3 (nos.)	1	8	23	46	92
Spanish	10	34	49	18	12	29	1	8	3+2 rpts.	166
Code Switch	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>5</u>	<u>12</u>
	12	34	51	27	15	31	10	34	56	270**

*G/E - remarks to the group and to self (egocentric).

**Plus one code switch by N, addressee unknown = 271

TABLE VI
COMPARISON OF TURN-INTERNAL SWITCHES IN
INTERVIEW AND DOMINO GAME: SYNTAX

<u>Speaker A:</u>		<u>Game:</u>	
<u>Language</u>	<u>Interview</u>	<u>Language</u>	
S-E	2 NPs	1. S-E	NP zero
	1. Christmas	2. E-S	NP cuatro
	2. half sister	3. E-S	Full S
		5. S-E	poss. pronoun (yours)
		6. S-E-S	NP+V (false start)
		7. S-E	discourse marker = VP + rel. = es que
<u>Speaker N:</u>		<u>Game:</u>	
<u>Language</u>	<u>Interview</u>	<u>Language</u>	
S-E	3 NPs	1. E-S	2 full S
	1. Christmas	3. S-E	NP "way"
	2. hapi beldey	4. E-S	adj. "veintidos"
	3. shelves	5. S-E	discourse marker = conjunction (if)
E-S	4. altra presón		

FOOTNOTES

¹This paper is the result of the suggestions, guidance, and personal example of Shirley Brice Heath; she has my sincere gratitude and respeto.

²The code switching patterns of the third and sixth grade teachers and classes are compared in another paper by this author, "Ta bien, you could answer me en cualquier idioma": Code Switching in Two New York Puerto Rican Bilingual Classrooms," paper delivered at the National Conference on Chicano and Latino Discourse Behavior, ETS, Princeton, N.J., April 18, 1978.

³Another seven days were spent with the sixth grade class and some of the results of that data are also included.

⁴The exam is a result of the Consent Decree signed by the Puerto Rican Educational Agency, Aspira of NY, and the NYC Board of Education in 1974. Spanish surnamed children take the exam and those who place below the 21st percentile in English are supposed to be admitted to bilingual programs.

⁵Twenty-nine of the 31 children interviewed were asked this question.

⁶A Spanish dominant sixth grader's (12 years old) version of the same phrase did not follow the Spanish and English word order--"Tengo tres hermanas step" (I have three step sisters/Tengo tres media hermanas) but broke up the expression and placed "step" in the Spanish adjectival slot.

⁷The other Ud form is said by J. to N.: "No, mire! It also communicates anger. (Trans. = No look)

⁸Trancar, literally "to block" in English, and tranque, stalemate, occur when no player has a domino that can be played.

⁹Although the Spanish would be "esa manera," the masculine is the acceptable borrowed form.

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